



SPACE-BASED POSITIONING
NAVIGATION & TIMING
NATIONAL COORDINATION OFFICE

U.S. Space-Based Positioning, Navigation & Timing (PNT): A Policy Update

Robert Hessin, Col, USAF
Deputy Director, National Coordination Office
United States of America

Civil GPS Service Interface Committee

Portland, Oregon
September 21, 2010



Overview



- **U.S. Space-Based PNT Policy**
- **U.S. Space-Based PNT Organization**
- **Key Accomplishments**
- **Summary**

GPS enables a diverse array of applications



Satellite Operation



Surveying & Mapping



Power Grids



Precision Agriculture



Transit Operations



NextGen



Disease Control



IntelliDrive



TeleComm



Trucking & Shipping



Personal Navigation



Oil Exploration



Fishing & Boating



U.S. Space-Based PNT Policy



- Provide GPS and augmentations **free of direct user fees** on a continuous, worldwide basis
- Provide open, **free access to information** needed to develop user equipment
- **Improve performance** of GPS and augmentations
- Seek to ensure international systems are **interoperable** with civil GPS and augmentations or, at a minimum, are **compatible**

Policy stability and transparency improve industry confidence and investment



New U.S. National Space Policy

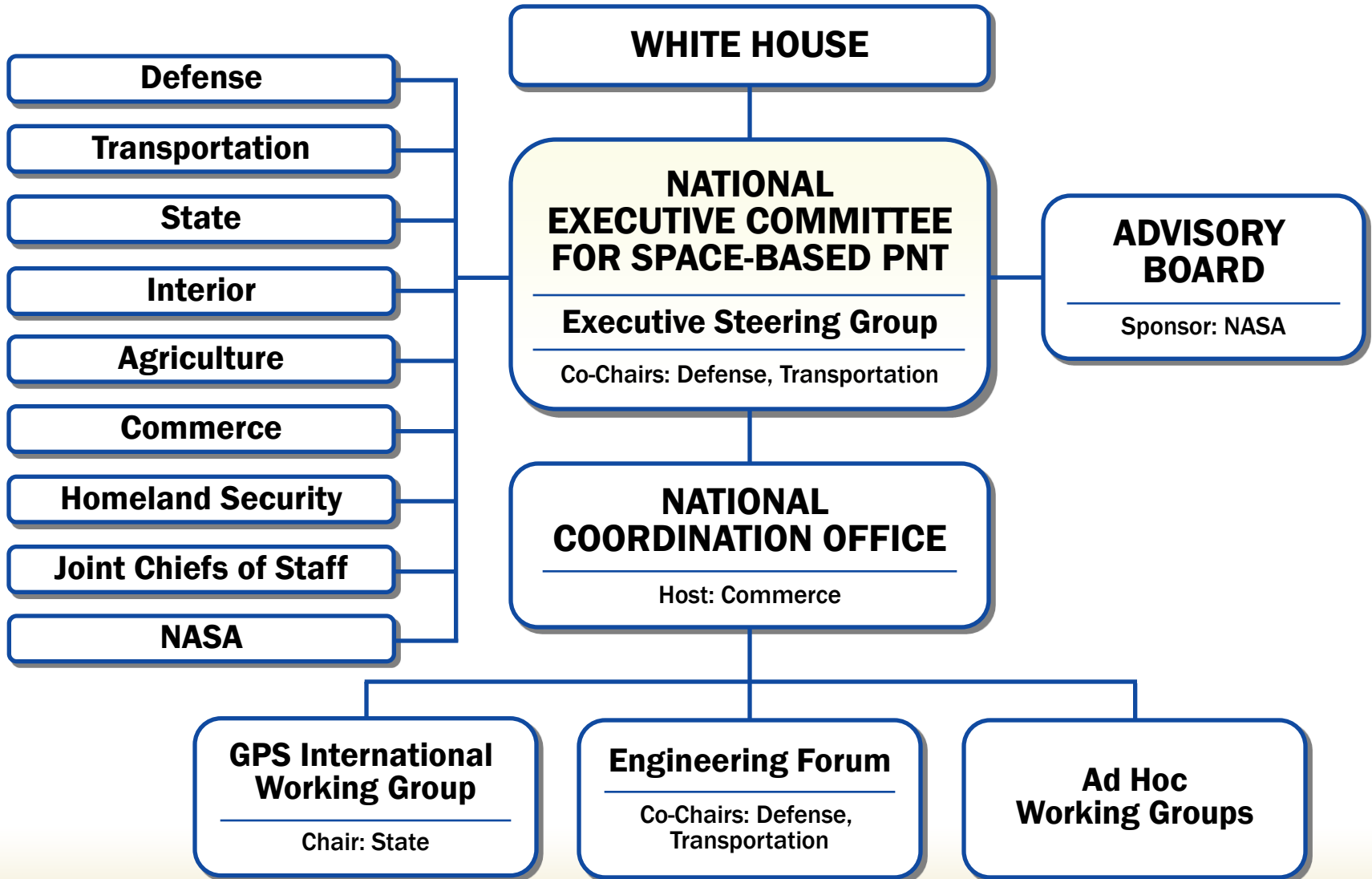


Space-Based PNT Guideline: Maintain leadership in the service, provision, and use of GNSS

- Provide civil GPS services, free of direct user charges
 - Available on a continuous, worldwide basis
 - Maintain constellation consistent with published performance standards and interface specifications
 - Foreign PNT services may be used to augment and strengthen the resiliency of GPS
- Encourage global **compatibility** and **interoperability** with GPS
- Promote **transparency** in civil service provision
- Enable market access to industry
- Support international activities to detect and mitigate harmful interference



U.S. Space-Based PNT Organizational Structure





National Space-Based PNT Advisory Board



- **Conducts assessments & makes recommendations to EXCOM in support of national policy goals and objectives**
- **18 members (including 5 international members)**
 - Co-Chaired by Dr. James Schlesinger, Dr. Brad Parkinson
- **Next cycle of taskings approved**
- **Next meeting – October 14-15, 2010**



Key Accomplishments

(Since last CGSIC Meeting)



- **4th Int'l Committee on GNSS (ICG)**
 - September 2009
- **OCX Contract awarded to Raytheon Systems**
 - January 2010
- **Hosted US-Japan Plenary**
 - January 2010; Washington D.C.
- **Submitted Annual Report to the President**
 - March 2010
- **\$43.4M in FY10 Civil Funding for GPS**
 - March 2010
- **Launched First Block IIF Satellite**
 - May 2010 – Set healthy 28 Aug 2010



Key Accomplishments

(Since last CGSIC Meeting)



- **Hosted 14th APEC – GNSS Implementation Team**
 - Seattle, WA; June 2010
- **National PNT Architecture Implementation Memo**
 - July 2010
- **Released updated GPS Interface Specs, including new baseline phase relationship for L2C signal**
 - August 2010
- **Expanded “gps.gov” and “pnt.gov”**
 - FAQs, briefs, news releases, and new links to technical documents, FY11 budget info, and legislative updates
- **Smithsonian’s “Time and Navigation” Exhibit**
 - Sponsoring and contributing technical advice



Looking Ahead



- **Next Executive Committee Meeting**
 - 3 November 2010
- **GPS Biennial Report**
 - First edition under “EXCOM” signature – Oct/Nov 2010
- **National Five Year Plan for Space-Based PNT**
 - In Coordination
- **Interference Detection and Mitigation**
 - DHS making strides, raising community awareness



Summary



- **GPS application and use are growing exponentially**
- **U.S. policy continues to encourage worldwide use of civil GPS and augmentations**
 - **Maintain and enhance Space-Based PNT systems**
 - **Compatibility, interoperability, and transparency**
 - **Foreign PNT may be used to strengthen resiliency**
- **Making PNT progress Nationally and Internationally**
 - **Focusing on improved interagency processes**
 - **Strengthening U.S. National presence**
 - **Addressing interference challenges**



For Additional Information...



GPS.gov

PNT.gov



Contact Information



Col Robert M. Hessin

National Coordination Office for Space-Based PNT
1401 Constitution Ave, NW
Room 6822
Washington, DC 20230

Phone: (202) 482-5812
(202) 482-5809

Robert.Hessin@pnt.gov